

Abstract of the Disclosure

A hub assembly, which accommodates rotation about an axis with a change in angular velocity, includes a carrier that is attached to a supporting structure, a shaft having a pair of sun rollers located in the carrier, a hub having a pair of rings, each surrounding a different sun roller, and planet rollers arranged in two rows between the sun rollers and the rings. The sun rollers have tapered raceways, as do the rings, and the planet rollers have tapered side faces along which they contact the raceways. The carrier has axles about which the planet rollers rotate, with each axle supporting a roller of each row. The planet rollers bear against each other at beveled end faces such the rollers on each axle back each other. Each roller contains an antifriction bearing which enable it to revolve on its axle and transfer radially and/or axially directed loads to the carrier. The planet roller axles are supported in the carrier such that wheel loads are transferred from the hub to the carrier and then to a supporting structure to which the carrier is mounted such that the wheel loads bypass a central shaft which extends through the hub and carrier.